

WHAT IS CLAIMED IS:

1. An endoscopic debris extraction device comprising:
a support filament comprising a first end portion;
5 a sheath comprising a lumen, the support filament disposed in the lumen such that the sheath is slideable with respect to the support filament;
a collapsible rake carried by the first end portion of the support filament, the rake comprising a plurality of shafts, each shaft comprising a respective raking portion that extends laterally away from the respective shaft;
10 the sheath movable with respect to the rake between a first position, in which the shafts are received within the lumen of the sheath, and a second position, in which the shafts extend beyond the sheath and hold the raking portions in position for stone raking operations.
- 15 2. The invention of Claim 1 wherein the raking portions comprise bent portions of the shafts.
- 20 3. The invention of Claim 1 wherein the raking portions comprise looped end portions on the shafts.
- 25 4. The invention of Claim 1 wherein the raking portions are received within the lumen of the sheath in the first position.
5. The invention of Claim 1 wherein the raking portions are smoothly rounded at an exposed end.
6. The invention of Claim 1 further comprising rounded balls at exposed ends of the raking portions.
- 30 7. The invention of Claim 3 wherein the looped end portions are joined to the shafts at an angle.

8. The invention of Claim 3 wherein there is a smooth transition from the looped end portions to the shafts.

5 9. The invention of Claim 1 wherein the shafts are formed continuously with the support filament.

10 10. The invention of Claim 1 wherein the shafts are secured to the support filament.

11 11. The invention of Claim 1 wherein the shafts comprise a shape memory metal.

15 12. The invention of Claim 11 wherein the shape memory metal comprises nitinol.

13. The invention of Claim 1 wherein the shafts comprise a polymer.

20 14. The invention of Claim 1 wherein the shafts comprise a plastic.

15. The invention of Claim 1 wherein the shafts comprise a metal alloy.

25 16. The invention of Claim 1 further comprising transversely extending elements between the shafts.